Remarks

In view of the above amendments and the following remarks, reconsideration of the outstanding office action is respectfully requested.

Initially, applicants would like to note that the present amendment is being submitted in compliance with "Amendments In A Revised Format Now Permitted", 1267 OG 4 (February 25, 2003). Pursuant to this notice, the requirements of 37 C.F.R. § 1.121 have been waived.

The rejection of claims 1, 3-7, and 12 under 35 U.S.C. § 112 (second paragraph) for indefiniteness is respectfully traversed.

The basis of the rejection, recited on page 6 of the office action, appears to be the recitation of the phrase "C1 to C30 alkyl" both alone (defining a first member of the recited Markush group) and in conjunction with "an acyl including a C1 to C30 alkyl..." (defining a second member of the recited Markush group).

Initially, applicants respectfully disagree with the U.S. Patent and Trademark Office (PTO) characterization of the phrase "C1 to C30 alkyl" as a range when, in fact, it is more appropriately considered as a shorthand listing of all encompassed alkyl groups.

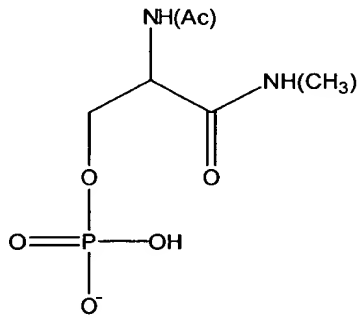
In any event, applicants submit that the identified language is not indefinite. An acyl group, by definition, possesses the structure of

where R is a defined substituent. Thus, an acyl group includes two components: a carbonyl and second component that needs to be defined. This is precisely what the language of claim 1 does. As recited in claim 1, the Markush group for substituent R^1 clearly and unambiguously recites that R^1 can be, *inter alia*, "a straight or branched-chain C1 to C30 alkyl" or "an acyl including a C1 to C30 alkyl or aromatic or heteroaromatic ring" (i.e., having the structure of

where R is a C1 to C30 alkyl or aromatic or heteroaromatic ring). Because the Markush group does not contain both a narrow limitation and a broad limitation encompassing the narrow limitation as suggested by the PTO, the claim language is not indefinite. Therefore, the rejection of claims 1, 3-7, and 12 under 35 U.S.C. 112 (second paragraph) for indefiniteness is improper and should be withdrawn.

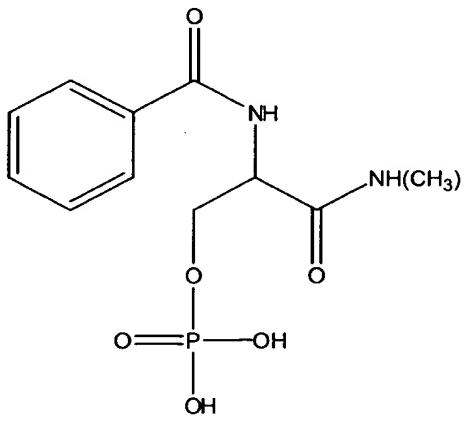
The rejection of claims 1 and 3 under 35 U.S.C. § 102(b) as anticipated by Noort et al., "Solid Phase Synthesis of Peptides Containing a Phosphoserine-Sulfur Adduct," Bioorg. Med. Chem. Lett. 6(16):2007-2012 (1996) ("Noort"); Avaeva et al., "Action of Acidic Phosphomonoesterase of Wheat Bran on the Methylamide of N-Benzoyl-O-Pyrophosphoserine," Khim. Prir. Soedin 5(6):551-554 (1969), CAPLUS Accession No. 1970: 431861 (Document No. 73:31861) ("Avaeva I"); and Avaeva et al., "Hydrolysis of Phosphoric Ester Serine Derivatives Containing Free Amino or Carboxylic Acid Groups," Vestn. Mosk. Univ. Khim. 12(5):627-8 (1971), CAPLUS Accession No. 1972:34548 (Document No. 76:34548) ("Avaeva II").

Noort teaches a phosphoserine compound (2) as a reaction intermediate in the production of peptides containing serine thioglycol phosphate. Compound (2) has the structure shown below:



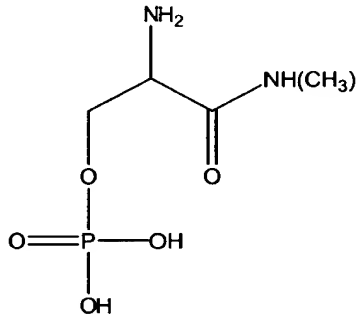
(see Scheme 1 at page 2008).

Avaeva I teaches the hydrolysis of S-enantiomer, methylamide derivative of N-benzoyl-O-phosphoserine with an extracted wheat bran acid phosphatase. The methylamide derivative has the structure shown below:



Avaeva I does not teach or suggest how the above compound can be prepared.

Avaeva II teaches the hydrolysis, in mild acid or mild alkaline, of the methylamide derivative of N-benzoyl-O-phosphoserine shown above in the description of Avaeva I as well as the hydrolysis of the methylamide derivative of phosphoserine shown below:



Avaeva II does not teach or suggest how the above compound can be prepared.

With respect to the compounds encompassed by claim 1 under group (i), applicants submit that none of Noort, Avaeva I, and Avaeva II teach or suggest a compound as recited, which includes the $(HO)_2PO—Z^1—$ group as X^3.

With respect to the compounds encompassed by claim 1 under group (ii), applicants submit that none of Noort, Avaeva I, and Avaeva II teach or suggest a compound as recited, because group (ii) explicitly recites that "when X^2 is $R^1—Y^1—A—$ with A being a direct link, Y^1 being —NH—, and R^1 being a straight or branched chain alkyl group, the straight or branched chain alkyl group is a C5 to C30 alkyl group." Written description support for this limitation exists in the definition of R^1 on page 17, which includes the list of suitable alkyl members as "straight or branched chain C1 to C30 alkyl." Because this shorthand recitation of suitable alkyl groups is a list of all suitable alkyl groups and one of ordinary skill in the art can readily envision all known C1 to C30 alkyls from its recitation, whether straight or branched, this recitation inherently specifies C5 alkyls. Moreover, because this limitation specifically excludes the compounds of Noort, Avaeva I, and Avaeva II, none of these references can anticipate the presently claimed invention.

Because none of the above-cited references makes any suggestion to replace the methylamide group with an alkylamide that includes a C5 to C30 alkyl, the presently claimed compounds of group (ii) likewise would not have been obvious over any one or Noort, Avaeva I, and Avaeva II, or combinations thereof.

For all these reasons, the rejection of claims 1 and 3 as anticipated by Noort, Avaeva I, and Avaeva II should be withdrawn.

Enclosed herewith is a supplemental information disclosure statement identifying references cited by the European Patent Office in a communication dated February 12, 2003. Applicants respectfully request the return of a signed, dated, and initialed form PTO-1449 form along with the next office response.

Respectfully submitted,

Dated: April 30, 2003

Edwin V. Merkel
Registration No. 40,087

NIXON PEABODY LLP
Clinton Square, P.O. Box 31051
Rochester, New York 14603-1051
Telephone: (585) 263-1128
Facsimile: (585) 263-1600

Certificate of Mailing - 37 CFR 1.8(a)

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: U.S. Patent and Trademark Office P.O. BOX 2327 Arlington, VA 22202, on the date below.

Date 4/30/03 Jane C. Wirszyla